## B. Amendments to the Claims

1  1.    (Currently Amended) A method of cooperatively load-balancing a cluster
2  of server computer systems for servicing client requests issued from ~~with respect~~
3  ~~to~~ a plurality of client computer systems, wherein said client computer systems are
4  mutually independent in issuing client requests to said cluster of server computer
5  systems and wherein said cluster of server computer systems interoperate with said
6  plurality client computer systems to establish a cooperative load-balancing of said
7  cluster of server computer systems, said method comprising the steps of:
8        a) selecting, by a client computer system, a target server computer system
9  from said cluster of server computer systems to service a particular client request
10  using available accumulated selection basis data, wherein said available
11  accumulated selection basis data is accumulated from said cluster of server
12  computer systems;
13        b) evaluating, by said target server computer system, said particular client
14  request to responsively provide instance selection basis data dynamically
15  dependent on the configuration of said target server computer and said particular
16  client request; and
17        c) incorporating said instance selection basis data into said available
18  accumulated selection basis data to affect a ~~the~~ subsequent selection of said
19  target computer system with respect to a subsequent instance of said particular
20  client request.

1  2.    (Original) The method of Claim 1 wherein said instance selection basis
2  data includes a representation of a dynamically determined performance level of
3  said target server computer system and wherein said available accumulated
4  selection basis data incorporates said instance selection basis data with
5  identifications of said target server computer and said particular client request.

1  3.    (Original) The method of Claim 2 wherein said instance selection basis
2  data includes a representation of a policy evaluation of said particular client
3  request relative to said target server computer system.

1  4.    (Original) The method of Claim 1 wherein said instance selection basis
2  data includes a load value and a selection weighting value, wherein said load

3    value represents a dynamically determined performance level of said target server
4    computer system and said selection weighting value represents a policy evaluation
5    of said particular client request relative to said target server computer system and
6    wherein said available accumulated selection basis data incorporates said
7    instance selection basis data with identifications of said target server computer
8    and said particular client request.

1    5.    (Original) The method of Claim 4 wherein said step of selecting selects said
2    target server computer system based on predetermined selection criteria including
3    the relative values of said load value and said selection weighting value with
4    respect to said particular client request as recorded in said available accumulated
5    selection basis data.

1    6.    (Original) The method of Claim 5 wherein said instance selection basis
2    data provides for a rejection of said particular client request and wherein said step
3    of selecting includes selecting an alternate server computer system from said
4    cluster of server computer systems as said target server system to service said
5    particular client request based on said available accumulated selection basis data.

1    7.    (Presently Amended) A method of load-balancing a cluster of server
2    computer systems in the cooperative providing of a network service <u>to host</u>
3    <u>computers operating mutually independent of one another</u>, said method
4    comprising the steps of:
5        a) selecting, <u>independently</u> by each of a plurality of host computers, server
6    computers within a computer cluster to which to issue respective service requests;
7        b) responding, by a corresponding one of said plurality of host computers,
8    to <u>a</u> ~~the~~ rejection of a predetermined service request by selecting a different server
9    computer to which to issue said predetermined service request;
10        c) receiving, in regard to said respective service requests by ~~the~~ respective
11    ones of said plurality of host computers, load and weight information from ~~the~~
12    respective <u>said</u> server computers<u>, wherein load and weight information is</u>
13    <u>dynamically generated by respective said server computers;</u> and
14        d) evaluating, by each of said plurality of host computers, ~~the~~ respective
15    load and weight information received with respect to <u>said</u> server computers of said

16 computer cluster as a basis for a subsequent performance of said step of
17 selecting.

1 8.    (Presently Amended) The method of Claim 7 further comprising a ~~the~~ step
2 of determining said weight information by each of said server computers with
3 respect to each service request received, said weight information being
4 determined from a predefined policy association between a received service
5 request and the identity of the one of said server computers that receives the
6 service request.

1 9.    (Presently Amended) The method of Claim 8 further comprising a ~~the~~ step
2 of distributing initial information by said cluster of server computers to said host
3 computers, said initial information providing selection lists of said server
4 computers to said host computers.

1 10.   (Original) The method of Claim 9 wherein said load information is
2 representative of a plurality of load factors including network loading and
3 processor loading.

1 11.   (Presently Amended) The method of Claim 10 wherein said load
2 information is representative of ~~the~~ processing ~~of~~ a current set of service requests
3 including a plurality of processor functions.

1 12.   (Original) The method of Claim 11 wherein said load information includes
2 one or more load values representing processing functions internal to a server
3 computer.

1 13.   (Presently Amended) A server cluster operated to provide a load-balanced
2 network service, said server cluster comprising:
3        a) a plurality of server computers individually responsive to service requests
4 to perform corresponding processing services, wherein said server computers are
5 operative to initially respond to said service requests to provide load and weight
6 values, wherein said load and weight values represent a ~~the~~ current operating
7 load and a policy-based priority level of a respective server computer relative to
8 a particular service request; and

9   b) a host computer system operative to autonomously issue said service
10 requests respectively to said plurality of server computers, said host computer
11 system further operative to select a target server computer from said plurality of
12 server computers to receive an instance of said particular service request based
13 on said load and weight values.

1 14. (Presently Amended) The server cluster of Claim 13 wherein said host
2 computer is operative to collect said load and weight values from said plurality of
3 server computers in connection with ~~the issuance of~~ respective service requests
4 <u>issued</u> to said plurality of server computers and wherein the selection of said
5 target server computer is based on ~~the~~ relative temporal age<u>s</u> of said load and
6 weight values.

1 15. (Original) The server cluster of Claim 14 wherein each of said plurality of
2 server computers include a policy data set store that provides for the storage of
3 a distinct server configuration and wherein said load and weight values are
4 dynamically determined by said plurality of server computers in response to said
5 service requests based on said distinct server configurations of said plurality of
6 server computers.

1 16. (Original) The server cluster of Claim 15 wherein said distinct server
2 configurations include the distinct identities of said plurality of server computers.

1 17. (Original) The server cluster of Claim 16 wherein said distinct server
2 configurations include distinct policy data relative to said service requests, wherein
3 said host computer system is operative to collect, relative to respective said service
4 requests, and provide attribute data to said plurality of server computers, and
5 wherein said server computers evaluate said attribute data in conjunction with said
6 distinct policy data to determine said weight values.

1 18. (Original) The server cluster of Claim 17 wherein said plurality of server
2 computers implement a security processing service, wherein said host computer
3 system is operative to selectively route network transported data through said
4 server computers dependent on said service requests as evaluated by said plurality
5 of server computers.

1 19. (Presently Amended) The server cluster of Claim 18 <u>wherein</u> said host
2 computer is operative to initiate respective data transfer transactions for each of
3 said service requests, wherein <u>a</u> ~~the~~ default routing of each said data transfer
4 transaction initially provides for the transfer of corresponding ones of said service
5 requests to respective ones of said plurality of server computers, and wherein said
6 respective ones of said plurality of server computers determine whether the
7 subsequent routing of network data within said respective data transfer
8 transactions includes routing said network data within said respective data transfer
9 transactions through said plurality of server computers.


1 20. (Presently Amended) A computer system providing, ~~on behalf of~~ <u>in support</u>
2 <u>of a plurality of</u> client computer systems, a network service through a scalable
3 cluster of server computer systems, said system comprising:
4     a) a <u>first</u> plurality of server computers coupled to provide a defined service,
5 wherein a server computer of said <u>first</u> plurality provides a response, including
6 <u>dynamically determined</u> load <u>and weight</u> information, in acknowledgment of a
7 predetermined service request issued to said server computer system, said
8 response selectively indicating nonacceptance of said predetermined service
9 request; and
10     b) <u>a second plurality of client computers coupleable through a network to</u>
11 <u>said first plurality, said second plurality including</u> a client computer system having
12 an identification list of said <u>first</u> plurality ~~of server computer systems~~, said client
13 computer system being operative to autonomously select a first server computer
14 system from said identification list to which to issue said predetermined service
15 request, wherein said client computer system is reactive to said response, on
16 indicated nonacceptance of said predetermined service request, to autonomously
17 select a second server computer system from said identification list to which to
18 issue said predetermined service request, and wherein said client computer system
19 is responsive to said load <u>and weight</u> information of said response in subsequently
20 autonomously selecting said first and second server computer systems.


1 21. (Cancelled).

1 22. (Presently Amended) The computer system of Claim 20 2⁺ wherein said
2 first plurality of server computer systems include respective policy engines and
3 wherein said weight information reflects an association between a server
4 computer policy role and said predetermined service request.

1 23. (Original) The computer system of Claim 22 wherein said predetermined
2 service request includes predetermined client process attribute information and
3 wherein said respective policy engines are responsive to said predetermined client
4 process attribute information in determining said server computer policy role
5 relative to said predetermined service request.

1 24. (Original) The computer system of Claim 23 wherein said load information
2 includes a value representing network and server processor performance.

1 25. (Presently Amended) A method of dynamically managing the distribution
2 of client requests from a plurality of mutually independent client computer systems
3 to a plurality of server computer systems providing a network service, each of said
4 server computer systems being discretely configured to respond to client requests,
5 said method comprising the steps of:
6 a) processing client requests to select for a particular client request a
7 particular server computer system of said plurality of server computer systems to
8 service said particular client request, wherein the selection of said particular server
9 computer system is dependent on the evaluation of accumulated selection
10 qualification information;
11 b) forwarding said particular client request to said particular server
12 computer system; and
13 c) receiving from said particular server computer system with respect to said
14 particular client request instance selection qualification information discretely
15 determined by said particular server computer system dynamically with respect to
16 said particular client request, wherein said instance selection qualification
17 information including a load value reflective of the current performance capability
18 of said particular server computer system and a weight value reflective of the
19 anticipated performance capability of said particular server computer system with
20 respect to said particular client request, wherein said instance selection

21 qualification information is incorporated into said accumulated selection
22 qualification information.

1 26. (Original) The method of Claim 25 wherein said processing step
2 dynamically evaluates said particular client request with respect to said
3 accumulated selection qualification information to identify said particular server
4 computer system as a best choice of said plurality of server computer systems for
5 selection.

1 27. (Presently Amended) The method of Claim 26 further comprising a ~~the~~ step
2 of evaluating by said particular server computer system, subject to the discrete
3 configuration of said particular server computer system, said particular client
4 request to provide <u>said weight value as part of</u> said instance selection qualification
5 information.

1 28. (Cancelled).

1 29. (Presently Amended) The method of Claim <u>27</u> ~~28~~ wherein <u>said weight</u>
2 <u>value part of</u> said instance selection qualification information includes a relative
3 prioritization of said particular client request with respect to said particular server
4 computer system.

1 30. (Original) The method of Claim 29 wherein said client requests are issued
2 with respect to client computer systems, wherein said particular client request
3 includes attributes descriptive of a particular client computer system that issued
4 said particular client request, and wherein said relative prioritization reflects the
5 evaluation of said attributes with respect to said particular server computer system.

1 31. (Presently Amended) A method of distributing computational load over a
2 plurality of server systems provided to support execution of a data processing
3 service on behalf of a plurality of client systems, wherein the computational load
4 is generated in response to client requests issued through a plurality of client
5 processes, said method comprising the steps of:

6  a) first processing a particular client request to associate attribute data from
7 a respective client process of said plurality of client processes with said particular
8 client request;

9  b) selecting, for said particular client request, a particular target server
10 system from among said plurality of server systems by matching said particular
11 client request against accumulated selection information to identify said particular
12 target server system;

13  c) second processing said particular client request, including said attribute
14 data, by said particular target server system to dynamically generate instance
15 selection information including a load value for said particular target server
16 system and reflective of a ~~the~~ combination of said particular client request and
17 said particular target server system <u>and a relative weighting value reflective of the</u>
18 <u>combination of said particular client request and said particular target server</u>
19 <u>system</u>; and

20  d) incorporating said instance selection information into said accumulated
21 selection information for subsequent use in said step of selecting<u>, wherein said</u>
22 <u>step of selecting matches said particular client request, including said attribute</u>
23 <u>data, against corresponding data of said accumulated selection information to</u>
24 <u>choose said particular target server system based on a best corresponding</u>
25 <u>combination of relative weighting value and load value.</u>

1 32. (Cancelled).

1 33. (Presently Amended) The method of Claim <u>31</u> ~~32~~ wherein said step of
2 selecting includes a step of aging said accumulated selection information.

1 34. (Original) The method of Claim 33 further comprising the steps of:
2  a) first providing, through a host process, said particular client request,
3 including attribute data, to said particular target server system; and
4  b) receiving by said host process, a particular target server response
5 including said instance selection information;
6  c) determining, by said host process from said particular target server
7 response, whether to select an alternate target server system;
8  d) reselecting, for said particular client request, a secondary target server
9 system from among said plurality of server systems by matching said particular

10     client request against said accumulated selection information, including said

11     instance selection information received from said particular target server response

12     to identify said secondary target server system; and

13          e) second providing, through said host process, said particular client

14     request, including attribute data, to said alternate target server system.


1    35.     (Original) The method of Claim 34 wherein said host process is executed

2    on a client computer system.


1    36.     (Original) The method of Claim 35 wherein said host process is executed

2    on a gateway computer system coupleable through a communications network

3    with a plurality of client computer systems.